



## Purple Deposits

I have seen purple deposits many times. It is copper cyanurate.

Back in the early 1980's, we found this on many spas, especially on metal things like light rings, ladders and hand rails. It was because in the early days of the spa industry many spas were sanitized with trichlor. I spent about 4 months and \$10,000 finding out what it was.

It happens when the the pH has been low for a very long time and a good amount of copper is dissolved into the water. Then, the cyanuric acid level gets over 200 ppm (I have seen some as high as 600 ppm CYA). Then someone notices that the pH and alkalinity are too low and corrects them. Within a few hours you get purple crystals forming on the metal fixtures (especially chrome and inside the filter). It took X-ray defraction analysis and some hard-working analysts at Monsanto Co. to discover this unusual phenomenon. It never occurred to them until I brought up the possibility.

You can remove it just as you would any other metallic stain - acid wash or try applying a sequestering agent or metal remover directly on it.

Of course, you may have manganese but I doubt it as manganese usually oxidizes (due to chlorine) all the way to the oxide which is black - manganic or manganous oxide.